Self-introduction

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Born in Wuhan China

Studied in CCNU

Majored in Physics

Now I have just finished first year in NMSU

Supervisor： Xiaorong Wang

Studying to be: Jpsi A_N of p+p and p+Au for Run15.

Heavy Flavor A_N

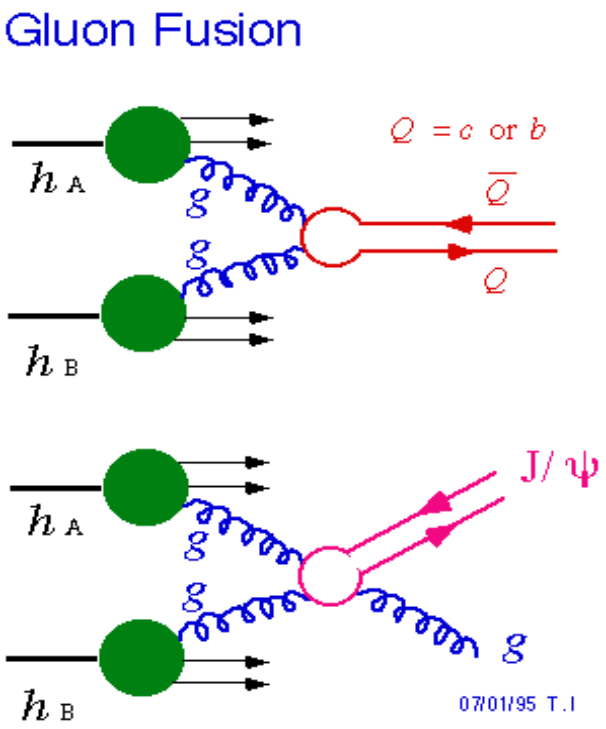
- Sensitive to gluon Sivers function
  * probe gluon's orbital angular momentum?
    -- Minimize Collins' effects
  * heavy flavor production dominated by gluon gluon fusion at RHIC energy
    Pythia 6.1 simulation (LO)

$$c\bar{c}: \; gg \to c\bar{c} \quad 95\%$$
$$b\bar{b}: \; gg \to b\bar{b} \quad 85\%$$

  * gluon has zero transversity

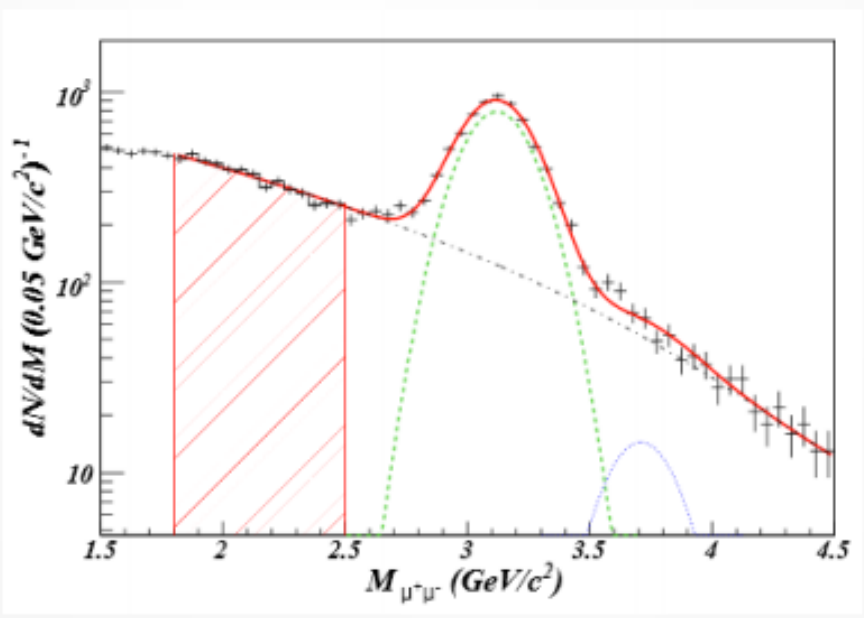
- Tri-gluon correlation functions in colliner, higher twist approach

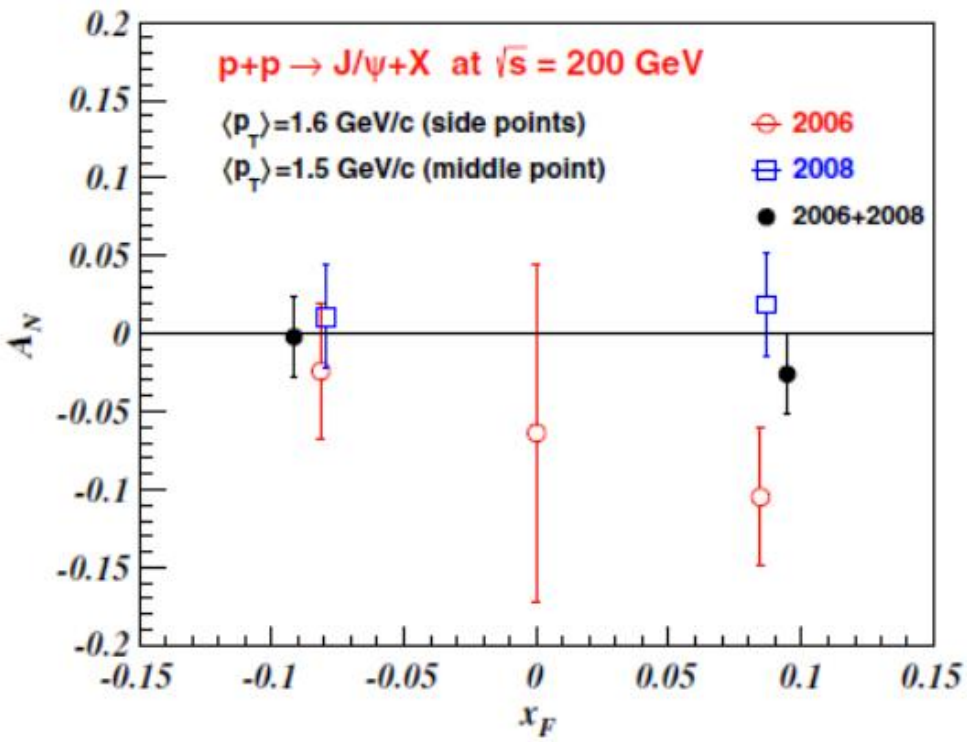
- Also sensitive to J/ψ production mechanisms and QCD dynamics



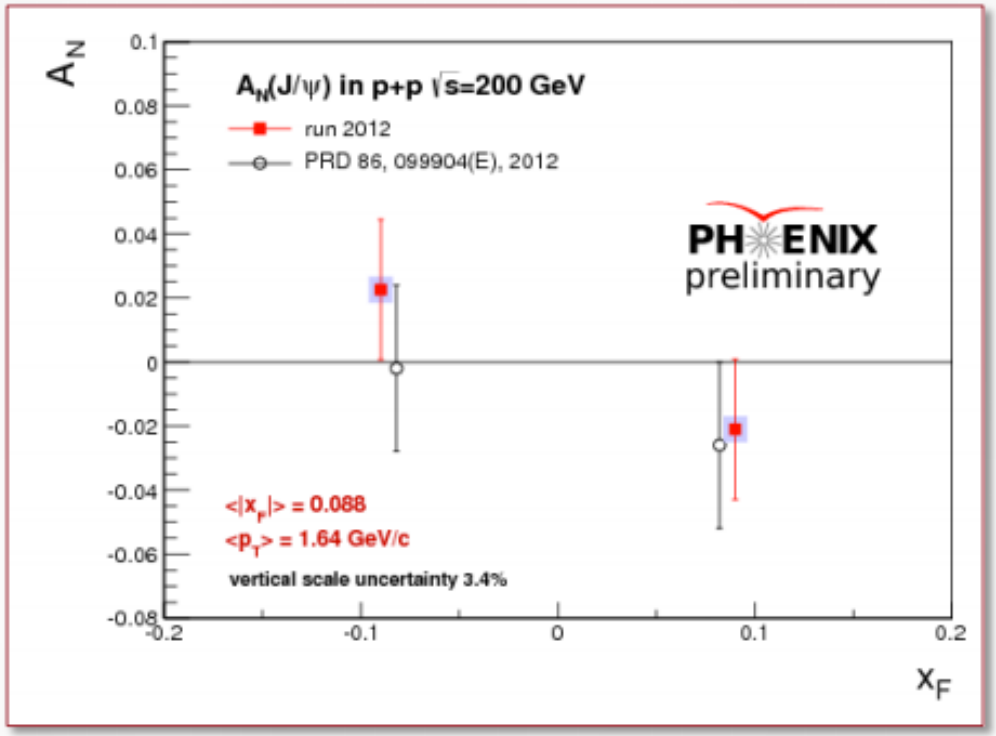
Results from earlier runs

Run6: 1.8pb^-1, Pol =53%
Run8: 4.5pb^-1, Pol = 45%
Run12: 9.2pb^-1, Pol = 60%
Run15 plan: p+p @ 200 GeV with transverse polarization for 9 weeks
50 pb^−1, Pol= 60%]



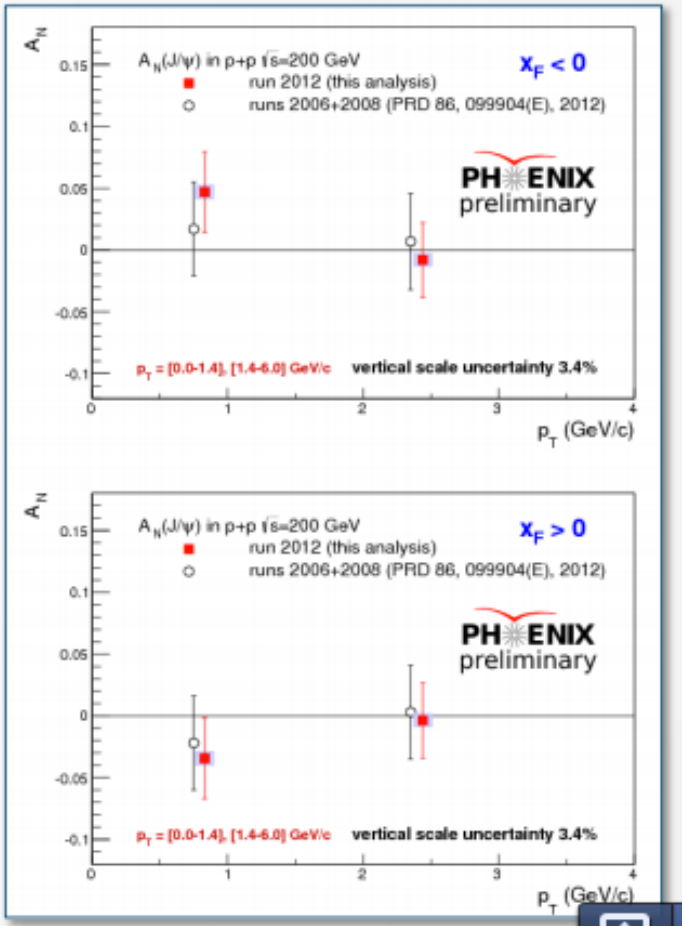


Comparison of Results



From Oleg's DIS2013 talk

p_T dependence



- Observed A_N are consistent with zero
  - Higher moments consistent with zero
- Measured asymmetries are consistent between data sets